

REMARKS

This Amendment is in response to the Office Action mailed on March 26, 2004. Claims 1-17, 19-20 and 23-29 are pending in the application. Claims 2-5, 8, 10, 12-13, 15 and 16 are withdrawn, claims 1, 9, 11, 14, 17, 19, 20 and 23-29 are rejected and claims 6-7 are objected to as being dependent upon a rejected base claim but allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claim. Applicants respond to the rejection of claims 1, 9, 11, 14, 19, 20 and 23-29 as follows.

Response to Claim Rejections - 35 U.S.C. § 102

Claims 1, 9, 14, 17, 19, 20, and 29 were rejected under 35 U.S.C. § 102(e) as being anticipated by Tadepalli, U.S. Patent No. 6,462,901.

Claim 1 and dependent claims 9 and 29 recite *inter alia* a flow device including a flow gate having a plurality of rows of radially spaced inlets and a plurality of rows of radially spaced outlets and a plurality of rows of radially spaced streamline flow passages between the plurality of rows of radially spaced inlets and the plurality of rows of radially spaced outlets. Terms in a claim are given their ordinary and customary meaning. Row refers to "a number of objects arranged in a straight line or a horizontal arrangement of items one after another". A plurality of rows thus refers to more than one row of multiple items.

Applicants' specification discloses a flow gate including multiple rows of flow passages for example in the illustrated embodiment of FIG. 3-1, "the flow gate structure . . . includes three rows" of flow passages 122-2 and in FIGS. 3-2 and 3-2 "four rows" of flow passages are shown. Each of the

plurality of rows includes multiple radially spaced flow passages arranged one after another.

Claims 1, 9 and 29 were rejected based upon shroud 200 of Tadepalli which as shown in FIGS. 1-3, 8 and 13 of Tadepalli includes a plurality of circumferential ribs 222 and recessed spaces 223 therebetween spaced from an outer circumference of a disc. Tadepalli does not disclose a plurality of rows of radially spaced flow passages where each row includes more than one flow passage where the more than one flow passages are radially spaced relative to one another as claimed. As described, in Applicants' specification, the flow gate as claimed provides a plurality of rows of radially spaced streamline flow passages to reduce turbulence and provide a more laminar flow along the flow field to reduce excitation of the suspension components which is not anticipated by Tadepalli.

Claims 14 and 17 and dependent claims 19 and 20 have been amended and as amended recite *inter alia* a flow controller supported in a flow field along the disc surface including a plurality of radially spaced flow passages. The flow controller claimed in claims 14, 17, 19 and 29 includes a plurality of radially spaced streamline flow passages in the flow field along the disc surface to reduce excitation of vibration modes of the suspension components. Claims 14, 17, 19 and 29 as amended distinguish Applicants' invention from the shroud structure of Tadepalli positioned about and spaced from an outer circumference of the disc. Reconsideration and allowance of amended claims 14, 17 and 19 are respectfully requested.

Claims 1, 9 and 23-29 were rejected under 35 U.S.C. § 102(b) as being anticipated by Yoshizawa JP 2-50379A. Yoshizawa discloses a spoiler to guide air towards a periphery of discs to make it circulate to filter 8. The spoiler disclosed in Yoshizawa is a temperature control spoiler to correct temperature

differences between discs on the upper/lower sides and in the middle of a disc stack.

For example as shown in FIGS. 2(a) and (b), ventilating holes (12) are formed in spoiler teeth (13) between discs 1 and 8 having a higher temperature to reduce air resistance and prevent temperature rise. Spoiler teeth in 2-7 have a shape shown in FIGS. 2(c), (d) and consequently air resistance is higher and the temperature is increased in 2-7. As a result the temperature difference among discs 1-8 becomes more uniform and thus it is possible to reduce mistracking.

See, Yoshizawa JP 2-50379A. As previously discussed, claims 1 and 9 recite *inter alia* a plurality of rows of radially spaced inlets and a plurality of rows of radially spaced outlets and a plurality of rows of radially spaced streamline flow passages. As interpreted based upon customary meaning, the plurality of rows of radially spaced streamline flow passages is not taught by the single row of venting holes 12 on outer spoiler teeth (13), (1) and (8) of Yoshizawa.

Claim 23 and dependent claims 24-28 recite *inter alia* a spindle assembly including a plurality of stacked discs and a plurality of flow devices supported in the flow field of the plurality of discs including adjacent flow devices having a plurality of radially spaced streamline flow passages as now claimed. Each of the flow devices provides a more laminar flow along the flow field. As previously discussed, Yoshizawa discloses a spoiler including teeth 13 between discs 1 and 8

include venting holes to prevent a rise in temperature of outer discs and teeth in discs 2-7 without venting holes to control a temperature differential between discs and does not teach adjacent flow devices or each flow device including a plurality of radially spaced streamline flow passages as now claimed.

Claim 24 as amended recites a plurality of streamline flow passages having opened channels along an elongate length thereof, for example as illustrated in FIGS. 3-1 and 6-1 of Applicants' specification, which is not taught nor suggested by Yoshizawa.

Claim 25 recite *inter alia* a flow gate upstream of the **head assembly** which was rejected on the basis "that the flow device can be construed as being "upstream" or "downstream" since air flows in a circular manner". This is an incorrect presumption. As understood by those skilled in the art, air flow forms a region upstream of the head assembly and a region downstream of the head assembly. Claim 25 recites a flow gate upstream of flow of the flow field to the head assembly to reduce turbulent flow to the head assembly or suspension components which is different from a downstream flow region. Yoshizawa does not teach a flow gate upstream of a head assembly as claimed. Reconsideration and allowance of Claim 25 based upon proper consideration of the claim limitations are respectfully requested.

Response to Claim Rejections - 35 U.S.C. § 103

Claim 11 was rejected under 35 U.S.C. § 103 as being unpatentable over Yoshizawa. Claim 11 is dependent upon claim 1 which is allowable over Yoshizawa as previously discussed. Accordingly reconsideration and allowance of claim 11 is respectfully requested.

Based upon the foregoing reconsideration and allowance of claims 1, 9, 11, 14, 17, 19, 20 and 23-29 are respectfully requested.

New claims 30-31 have been added for consideration. Favorable action with respect to new claims 30-31 are respectfully requested.

Claims 2-5, 8, 10, 12, 15-16 are withdrawn as being directed to a non-elected invention. Allowance of claims 2-5, 8, 10, 12 and 15-16 is respectfully requested upon allowance of claims 1 and 14.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

By:


Deirdre Megley Kvale, Reg. No. 35,612
Suite 1600 - International Centre
900 Second Avenue South
Minneapolis, Minnesota 55402-3319
Phone: (612) 334-3222 Fax: (612) 334-3312

DMK/bjt